snared off from the nucleus are found only in macrocytes and megaloblasts. When situated near the nucleus they stain red, while those peripherally placed are usually blue. They are readily stained with all nuclear dyes, and are easily demonstrated with the triacid stain. There is no connection between these and basophilic granules.

With the demonstration of large numbers of cells showing basophilic granules in the blood of normal embryos of all animals examined, a new and very important argument is brought forward for the regenerative character of these granules.

The Blood in Basedow's Disease.—GORDON and VON JAGIE (*Wien. klin. Woch.*, 1908, xxi, 1589) have made complete blood examination in 13 cases of Basedow's disease, including 7 incomplete cases, which they called Basedowoid. Normal red and white counts and normal hemoglobin were found, though occasionally a slight leukopenia existed (3500). Differential counts showed in nearly all a relative lymphocytosis up to 39 per cent., and a relative mononucleosis up to 13.5 per cent. In all cases in which the percentage of lymphocytes was normal, there was a marked increase of the large mononuclears, and the reverse was also true. They emphasize especially the value of these findings in the incomplete cases. The mononucleosis is to be explained by the splenic enlargement, which is not uncommonly found in this disease. They refer to the enlargement of the lymph glands, and think that this has something to do with the lymphocytosis.

Arterial Pressure in Tabes, and its Modifications during the Gastric Crises and Lightning Pains.—J. HEITZ and M. NORERO (*Arch. d. maladies du cœur, des vaisseaux, et du sang*, 1908, i, 505) have studied the blood pressure in tabes, especially in relation to the gastric crises and lightning pains, and find that in the former there is generally a marked vasoconstriction and hypertension, most probably secondary to the pain. Pain is possibly due to an irritation of the posterior roots, and is accompanied by the reflex phenomena of vomiting, constipation, and the vasoconstrictor influence which brings about the hypertension. This increase of the pressure is absent in those cases in which the pain is slight or absent. The hypertension becomes less marked in the older patients, possibly because the reflexes are interfered with in the progress of the lesions. The peripheral lightning pains are also associated intimately with the hypertension. As regards treatment, the inhalation of nitrite of amyl relieves the pains immediately, and this may be kept up even after the pressure has returned to normal. Injections of nitrite of sodium, 4 centigrams (⅔ grain) daily, do not seem to have any influence on either the pains or the hypertension. The gastric crises are accompanied by an acceleration of the pulse contrary to those in lead poisoning and gallstone colic. From their observations Heitz and Norero do not think that the cardiovascular system of tabetics suffers from the repetition of the pains as much as one would think.

The Inhibition of Pancreatic Activity by Extracts of the Suprarenal and Pituitary Bodies.—RALPH PEMBERTON and J. E. SWEET (*Arch. Int. Med.*, 1908, i, 628) have found that the suprarenal glands and the nervous portion of the pituitary body in dogs contain something which, on extraction with salt solution and intravenous injection into dogs, cuts short the flow of pancreatic juice after the administration of secretin. It also prevents the stimulation of the gland by secretin if such an injection has preceded. This feature has been found up to the present time in no other tissues. It is independent of the general rise in blood pressure seen after the intravenous injection of adrenalin and pituitary extracts. The inhibitory factor of extracts of the suprarenal gland seems to disappear by decomposition, oxidation, or other processes before the blood pressure raising element has gone. It would appear that the suprarenal and pituitary bodies have at least one property other than those generally recognized as present in them.

Rheumatic Myocarditis.—CAREY COOMBS (*Quar. Jour. Med.*, 1908, ii, 26) notes the importance of the involvement of the myocardium in patients who have had rheumatism, and thinks that so much attention has previously been focussed on the pericardium and endocardium in rheumatic subjects that the myocardium has been more or less overlooked. In his study, Coombs has reached the following conclusions: That dilatation of both ventricles is constant and often of considerable degree. The auriculoventricular orifices share in the stretching. Hypertrophy of both ventricles is usually present, and in many instances without any obvious mechanical cause. The changes in the heart are mainly microscopic, and consist of slight fatty changes in the cells, but the important point is the formation of nodules in the stroma. They appear to constitute an inflammatory reaction, and are characteristic of rheumatic, as opposed to other forms of carditis; similar changes are seen in rheumatic endocarditis, pericarditis, and subcutaneous rheumatic nodes. The toxemia accounts, no doubt, for the greater part of the fatty changes in the cells, as well as the dilatation and hypertrophy. Coombs thinks that the physical signs characterizing the rheumatic heart disease of childhood are, in the majority of cases, referable to the myocardial lesion and not to those of the serous layers. Death during childhood from rheumatic conditions is frequently directly due to myocarditis, while in later life also some deaths are due to this same cause.

Tabes a Disease of the Deep Sensations.—J. GRASSET (*Scientific Series* 5, Montpelier, 1909) in this monograph presents a most thorough clinical study of the disturbances of the deep sensations in tabes, the various analgesias, the abolition of the deep reflexes, trophic changes, arthropathies, etc.; gives a thorough anatomical and phyisological study of the disease; and notes the importance of the involvement of the sympathetic system. He concludes that tabes is a disease of the deep sensations, and that the disturbances of these play a more or less important role in each case; they are of such importance in its diagnosis that whether the picture be complete or not one cannot conceive of tabes without disturbance of the deep sensations, while no other group of symptoms is so indispensable in a picture of the disease. The disturbances of the deep sensations most commonly met with are the analgesias on deep pressure (epigastric, tracheal, testicular, ocular, tendons, bones, nerve trunks) or with disturbances of the stomach, heart, bones, and articulations and their consequences, hypotonia and the possibility of forced articular displacements, trophic disturbances, loss of tendon reflexes, loss of muscle sense with its resulting ataxia. These are symptoms of a defect in the deep sensations, and the direct consequence of lesions in the posterior tracts. At the same time there are many other symptoms that become evident in a fully developed case of tabes which are more or less due to disturbances of the superficial sensations; it is impossible to picture a break in the working of the deeper sensations without the involvement of the superficial also. The disturbances of the deep sensations are, however, of more importance than the others and precede them.

Typhoid Meningitis.—E. E. SOUTHARD and E. F. RICHARDS (*Jour. Med. Research*, 1908, xix, 513) report the case of a man, aged thirty-two years, who died after an acute illness of one week. There was no history of previous typhoid fever. The patient had had lues at nineteen, gradually advancing tabes at twenty-eight, and the signs of general paresis at thirty. At autopsy the findings were those of a hypostatic pneumonia, acute cerebrospinal leptomeningitis, and enlargement of the mesenteric lymph nodes; there were no lesions corresponding to a typhoid infection in the intestine. A pure culture of Bacillus typhosus was obtained from the meningeal pus and the large mesenteric glands, but blood cultures failed to yield the same organism. The meningeal exudate contained polynuclear leukocytes in great numbers, suggesting the hypothesis that Bacillus typhosus in the meninges may exert a directly pyogenic action. Should this hypothesis be upheld the indications are that the typhoid bacillus may have two separate effects: the one produced by diffusible toxin characteristically in the intestinal tract, and the other produced in the meninges either by the direct local action of the bacilli or through an endotoxin due to destruction of the bacilli. Experimentally, Southard and Richards found that Bacillus typhosus inflamed the meninges of guinea-pigs, the exudates showing many polynuclear leukocytes, mononuclears appearing only about seven days after inoculation. Further research is desirable to determine whether the local action of Bacillus typhosus in the meninges is or is not of an endotoxic type.

Palliative Treatment of Elephantiasis.—ALDO CASTELLANI (*Philippine Jour. of Science*, 1908, iii, 311) has been experimenting for some time with injections of various antiseptics, with the idea of destroying the organism which causes this disease (such drugs as methylene blue, bichloride of mercury, carbolic acid, various arsenical compounds, cacodylate of sodium, quinine, and others). All of these were of little use. Then Castellani used theosinamin on account of its power of softening various kinds of fibrous tissue. As the injections of theosinamin are very painful Castellani used "fibrolysin," which is a water-soluble combination of theosinamin with sodium salicylate, 2 c.c. corresponding to 0.2 grams of theosinamin. This dose is given daily or every other day according to the case. At the same time rest, massage, and, most important of all, proper systemic pressure by means of bandages which are necessary adjuncts. Later surgical measures can be resorted to for the removal of the redundant skin. This method the authors found of great use in a certain number of suitable cases. As yet he has found no definite explanation for the action of theosinamin. It was noted, however, that in some cases following the injection there was a fairly well-marked, though transient, leukocytosis. It is to be noted that the treatment without a constant well-distributed pressure on the affected parts by bandaging does not cause any marked improvement, and that vice versa the pressure alone without the theosinamin injections has practically no effect in the severe chronic cases.

The Treatment of Thyroidism by a Specific Cytotoxic Serum.—John Rogers and S. P. Beebe (*Archives of Internal Medicine*, 1908, ii, 297), in their latest report on the use of a specific serum in cases of thyroidism, review their former work on the subject go especially into the nature of the serum, and conclude that the serum has a specific effect in neutralizing the toxic action of the thyroid secretion. As a therapeutic agent it gives results which cannot in many cases be obtained by any other medical means. Not all cases presenting symptoms of thyroidism can be treated successfully with serum, because not all cases are purely hypertrophic in origin. The rapid amelioration of symptoms in acute toxic cases similar in most respects to the well-accepted instances of neutralization of toxin by antitoxin, is a weighty argument in favor of believing the symptoms to be due to the toxic agents of hyperthyroidism. The beneficial effects of combined treatment (administration of both the antiserum and the pure thyroid proteid, $\frac{1}{60}$ grain of thyroid proteid thrice daily and the injection of 5 minims of the serum every fifth day), gives the best results, and indicates a dysthyroidism as well as a hyperthyroidism as a factor in the production of symptoms.

SURGERY.

UNDER THE CHARGE OF

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Concerning Changes in the Blood after Operations.—Bolognesi (*Zentrbl. f. Chir.*, 1908, xxxv, 1457) says that for some time investigations have been made in the surgical clinic in Modena concerning changes in the blood following operations. In recent years he found by experiments on animals that a change occurred in the protein substance of the blood serum, in infections by the pyogenes communis. He decided to investigate whether any noteworthy changes occurred in simple operations done under careful asepsis, where the microbes were not acting and no narcosis was employed. When in small dogs various operations were performed and the blood serum of the animals, taken at various periods (three to eight days) after the operation, was treated with a 1 to 2000 solution of salicylic acid, in the proportion of 10 to 50, and this was